

SECTION VIII - CHAPTER 1

WASTE MANAGEMENT

1.0 PURPOSE

The purpose of this Chapter is the establishment of a Waste Management Program at ANL-W.

2.0 GENERAL

2.1 Scope

Waste Management consists of the planning, implementation, execution, surveillance, and reporting of functions related to radioactive and nonradioactive solid wastes and scrap, including treatment, packaging, interim or long-term storage, and disposal. Section VIII of this Manual is devoted to the subject of Waste Management, to the regulatory requirements of DOE, EPA and other agencies, to the establishment of a Waste Management Program, and to the promulgation of requirements implementing the Waste Management Program.

2.2 Objectives

The objectives of Waste Management are:

- 2.2.1 To ensure the protection of ANL-W employees and of the general public, and the safeguarding of private and public property from possible adverse effects arising out of the disposal of radioactive and nonradioactive wastes from facilities of the Argonne National Laboratory.
- 2.2.2 To ensure the operations are conducted and radioactive waste is stored or disposed of in such a manner as to ensure that present and future radiation exposures to individuals and population groups will be at the lowest technically and economically practical level not exceeding the standards for radiation protection established in DOE Order 5400.5.
- 2.2.3 To ensure that hazardous wastes are stored and disposed of in accordance with EPA regulations as established in 40CFR 261-270.

2.3 Waste Management Program

The Site Manager, ANL-W, has established a Waste Management Program. The program consists of (1) the requirements of the Waste Management Section (Section VIII) of this Manual; and (2) the establishment of a Waste Management function within the Safety, Environment and Safeguards department.

3.0 REQUIREMENTS

Waste Management Program requirements are detailed in this and the subsequent Chapters of this Section. The requirements apply to all Laboratory operations and functions carried on at ANL-W which produce radioactive or nonradioactive solid wastes. Liquid and gaseous effluents are discussed in Section IX of this manual.

4.0 RESPONSIBILITIES

4.1 Manager, Safety, Environment and Safeguards, shall:

- 4.1.1 Establish a function responsible for Waste Management within his organization.
- 4.1.2 Provide assurance to the Site Manager that the Waste Management Program at ANL-W is in compliance with the regulatory requirements referenced in this Chapter and with other regulations or directives promulgated subsequent to publication of this Chapter.

4.2 Manager, Waste and Environment Engineering shall:

- 4.2.1 Provide surveillance over Waste Management Program activities, and keep the Site Manager and the Manager, Safety, Environment and Safeguards, informed of the status of ANL-W with respect to regulatory requirements for Waste Management.
- 4.2.2 Prepare records and reports of the Waste Management Program.
- 4.2.3 Manage and operate the Radioactive Scrap and Waste facility (RSWF).
- 4.2.4 Review and approve procedures for radioactive solid waste that is to be sent to the ANL-W RSWF or INEL - Radioactive Waste Management Complex.

4.2.5 Review new designs and design modifications for waste systems.

4.2.6 Coordinate and approve the disposal of hazardous waste.

4.3 Line Management shall:

4.3.1 Provide assurance to the Site Manager that the facilities are operating within established limits and regulations relative to the Waste Management Program.

4.3.2 Ensure the adequacy of the Waste Management Program within their respective facilities of operations.

4.3.3 Ensure that the volumes of solid, wastes generated within their facilities are reduced to the lowest technically and economically practical level.

5.0 REFERENCES

5.1 DOE Order 5400.4, "Radiation Protection of the Public and the Environment."

5.2 DOE Order 5820.2, "Radioactive Waste Management."

5.3 40CFR 260-266, "EPA Regulations on Hazardous Waste."

5.4 Idaho Solid Waste Management Regulations.

5.5 Idaho Hazardous Waste Management Regulations.

SECTION VIII - CHAPTER 5

DISPOSAL OF NONHAZARDOUS, NONRADIOACTIVE WASTE

1.0 PURPOSE

Disposal of nonhazardous, nonradioactive waste materials generated at ANL-W is regulated by this manual, by the site service contractor, by DOE, and by any agreements between DOE and other federal or state agencies. This chapter defines nonhazardous, nonradioactive wastes and the procedures and responsibilities for disposal of these wastes generated at ANL-W.

2.0 DEFINITIONS

2.1 Waste

Waste is solid, liquid, semi-solid, or gaseous material that has served its intended purpose and is discarded.

2.2 Nonhazardous, Nonradioactive Waste Criteria

Waste is nonhazardous, nonradioactive if it meets all of the applicable following criteria:

- 2.2.1 The waste shall have no detectable fixed alpha contamination and less than 20 dpm/100 cm² smearable alpha contamination.
- 2.2.2 The waste shall not have fixed beta-gamma contamination in excess of 100 CAB by with an HP 260 probe at 1/2 in. Smearable beta-gamma contamination shall be less than 500 dpm/100 cm².
- 2.2.3 The waste shall not exceed the most restrictive concentration allowable for release to an uncontrolled area according to DOE 5400.5. (This table is included in Section IX, Chapter 4 of this Manual.)
- 2.2.4 The specific activity of the waste shall not exceed 2 nanocuries per gram of material (provided the radioactivity is essentially uniformly distributed). (Reference 49CFR173.389(e).)
- 2.2.5 The waste is hazardous if it exhibits any of the four characteristics defined in 40CFR261, Subpart C (ignitability, corrosivity, reactivity, Toxic Characteristic Leaching Procedure [TCLP]), or if it is included in the lists of hazardous waste in 40CFR 261, Subpart D.

2.3 Waste Disposed of on INEL

Nonradioactive wastes that may be disposed of at designated ANL-W, CFA or other INEL sites are those wastes: (a) for which disposal is not restricted by federal, state or local regulations, or (b) for which an approved on-INEL disposal method or site exists. Nonradioactive wastes disposed of on INEL are limited to:

1. Office trash
2. Cafeteria garbage
3. Lumber, in amounts with no salvage value
4. Metal, in amounts with no salvage value
5. Asphalt
6. Construction debris
7. Sanitary sewage
8. Industrial waste-water
9. Asbestos
10. Fluorescent lights and fluorescent light ballasts (non-PCBs)
11. Gaseous
12. Explosives, as approved on a case by case basis by Safety, Environment and Safeguards and the INEL site service contractor.

2.4 Waste Disposed of Off INEL

Nonradioactive wastes, for which no approved INEL disposal method or site exists, must be properly packaged and transported off of the INEL to an approved treatment, storage, or disposal facility. These wastes are usually referred to as "poison," "toxic," "hazardous," etc., even though the regulatory definitions may differ from the dictionary definitions (see Section VIII, Chapter 6).

3.0 SUMMARY OF APPLICABLE REGULATIONS

Table 1 summarizes the titles, promulgated regulations, and coverage of applicable laws affecting disposal of nonhazardous, non-radioactive wastes generated at ANL-W. ANL-W compliance is required by various Executive Orders, DOE Orders, and/or DOE agreements with other agencies (such as EPA).

TABLE 1. SUMMARY OF APPLICABLE REGULATIONS

<u>Title of Legislation</u>	<u>Resulting Regulations Published At</u>	<u>Summary of Coverage Applicable to ANL-W</u>
1. Toxic Substances Control Act, PL94-469, (TSCA)	40 CFR 700-799	Polychlorinated Biphenyls (PCBs) Chlorofluorohydrocarbons (e.g., Freons)
2. Federal Insecticide, Fungicide, and Rodenticide Act, PL92-516, (FIFRA)	40 CFR 162-180	Pesticide use Disposal of pesticide containers
3. Occupational Safety and Health Act, PL91-596, (OSHA)	29 CFR 1910, 1915, 1918, 1926	Asbestos
4. Clean Air Act, PL91-604, (CAA)	40 CFR 50-80	Discharges to the atmosphere
5. Clean Water Act, PL92-500, (CWA)	40 CFR 100-140, 400-470	Discharges to surface waters
6. Safe Drinking Water Act, PL93-523, (SDWA)	40 CFR 140-149	Drinking water quality Discharges into underground injection wells
7. Resource Conservation and Recovery Act, PL94-580, (RCRA)	40 CFR 240-271	Hazardous wastes
8. Comprehensive Environmental Response, Compensation, and Liability Act, PL96-510, (CERCLA)	40 CFR 300	Cleanup of releases of hazardous substances to air, land, surface water or groundwater. Spill reporting.
9. Hazardous Materials Transportation Act, PL93-633, (HMTA)	49 CFR 106, 107, 171-179	Packaging, labeling, and transportation of hazardous materials

4.0 REQUIREMENTS

4.1 Control of Nonhazardous, Nonradioactive Waste

All nonhazardous, nonradioactive waste shall be controlled in a manner which will prevent health hazards, public nuisances, or environmental pollution and shall comply with applicable regulations. Every effort shall be made to reduce the volume of waste generated through waste minimization, recycling, and/or excessing through Supply.

4.2 General Requirements

- 4.2.1 All nonhazardous, nonradioactive solid waste generated at ANL-W shall be disposed of by methods and at sites approved by DOE, USEPA, or both, as applicable.
- 4.2.2 Nonhazardous (per 40CFR261) nonradioactive waste liquids may be disposed of as industrial or sanitary waste.
- 4.2.3 Radioactive or hazardous (per 40CFR261) material shall not be discharged or released to the industrial waste pond or sanitary lagoons. This restriction does not apply to tritium in EBR-II turbine condensate or to radioisotopes used for medical treatment of site personnel.
- 4.2.4 Disposal of aqueous waste to the industrial waste pond and sanitary lagoons shall be controlled to comply with Idaho Water Quality Standards and Wastewater Treatment Requirements.
- 4.2.5 Atmospheric disposal of nonradioactive aerosols and gases shall conform with Rules and Regulations for the Control of Air Pollution in Idaho.

4.3 Nonhazardous, Nonradioactive Solid Waste Disposal

- 4.3.1 Material such as garbage, rubbish, and trash is normally placed in green metal dumpsters, specifically designated for nonhazardous, nonradioactive solid waste. Green dumpsters, referred to as cold waste dumpsters, are emptied weekly by the INEL service contractor. Waste from these dumpsters is sent to the CFA sanitary landfill for burial and must meet Landfill Operations Waste Acceptance Criteria. Cafeteria garbage shall be bagged in plastic before being placed in dumpsters.

4.3.1.1 Prohibited Items

The following items are prohibited from burial at the CFA landfill and thus are prohibited from disposal in cold waste dumpsters:

- ANY free liquids
- Lead
- Light ballasts with PCBs
- Photographic chemicals
- Pesticides, herbicides, and insecticides. Completely empty containers can be disposed of as cold waste after triple rinsing, as stated in 4.6.6.4 of this chapter.
- Vehicle/equipment batteries
- Any hazard label on any container or packaging. Completely empty hazardous materials can be disposed of as cold waste if hazard labels are rendered unrecognizable, as stated in 4.6.6.3 of this chapter.
- Mercury thermometers
- Ammunition
- Oil-based painting products
- Radioactive or contaminated items exceeding limits stated in Section 2.2
- Hazardous wastes as listed in 40CFR261
- Hazardous substances as listed in 49CFR172.101
- Aerosol cans with any remaining contents. Unpunctured aerosol cans are acceptable if they are completely empty of contents and propellant.

NOTE: Any contents in aerosol cans renders them hazardous waste.

- Liquids absorbed in "floor dry" or "kitty litter" are prohibited. Small volumes of liquids solidified in portland cement, Aquaset or Petroset are acceptable.

4.3.2 Conditional items are wastes that can be disposed of in the sanitary landfill, asbestos pit or bulky waste pit if certain conditions are met. All conditional items are considered nonstandard shipments and must meet requirements specified in the Landfill Operations Waste Acceptance criteria.

4.3.2.1 Sanitary landfill conditional items are considered nonstandard shipments transported at the generators expense and separately from standard waste shipments. Twenty-four hour notice for large or bulky shipments and a waste certification statement accompanying the shipment is required. Conditional items and handling methods include:

- Fluorescent light tubes must be crushed or pulverized and packaged in a 55-gallon drum labeled "Crushed Fluorescent Tubes." The drums must have lids in place when they arrive at the landfill.
- Empty drums, large wooden boxes, and bulky items are acceptable if plugs and/or lids have been removed. Two days advance notice is required for large quantity shipments.
- Oil filters from compressors, machinery, trucks, etc., are acceptable if they are drained for 24 hours and packaged in absorbent material. No free liquid can be present.
- Vegetable oils from the cafeteria are acceptable if solidified with Petroset.

- Fluorescent light ballasts, clearly marked as containing NO PCBs, are acceptable if packaged in noncolor-coded plastic bags or drums.

4.3.2.2 The asbestos pit is for the disposal of asbestos packaged and labeled in accordance with Section 17.2 of the EG&G Safety Manual and 40CFR61.152. Shipments to the asbestos pit must be made as nonstandard waste shipments and require 24-hour notice.

4.3.2.3 The bulky waste pit is for disposal of large or heavy materials that require trucks for handling. Acceptable items include asphalt, gravel, dirt, concrete, and metals imbedded in concrete. Shipments to the bulky waste pit must be made as nonstandard waste shipments and require 24 hour notice.

4.3.3 Nonradioactive wastes, scrap lumber, scrap metal, etc., shall be surveyed by Radiation Safety prior to transport from the ANL-W site to ensure that they do not contain radioactivity. Wastes shall be Green Tagged.

4.3.4 A "Nonradioactive Solid Waste Log" (Form EG&G-130) will be completed by the generator to reflect accurate volumes and types of waste. These will be approved by landfill operations personnel prior to off-loading.

4.3.5 Construction Debris:

- Cold waste dumpsters shall be made available to Contractors working on the ANL-W site. The Contractor shall use the dumpster for disposal of solid nonhazardous, nonradioactive wastes as directed by this chapter for effective control of waste as work progresses.
- The Contractor shall remove excavated materials, boulders, lava rock, gravel and debris from the ANL-W site. Disposal of these wastes will comply with guidelines addressed in this chapter.

4.4 Burning of Nonradioactive Waste

4.4.1 Open burning of combustible nonradioactive waste is prohibited, with two exceptions:

- a. Fires used for control or alleviation of fire hazards or for weed control when no alternate control method exists.
- b. Fires used in the training of fire fighting personnel.

4.4.2 Open burning shall be coordinated with the Fire Protection Engineer.

4.5 Segregation of Salvageable Wastes

4.5.1 Salvageable materials shall be segregated from routine waste for special handling. Supply shall coordinate the disposal of salvageable material.

4.5.2 Salvageable scrap metal and lumber shall be disposed of by Supply.

4.6 Chemical Disposal

4.6.1 Determination of Regulated Status

The generator of chemical waste shall make the initial assumption that disposal of the waste is regulated, and he shall coordinate the disposal with the Waste Management Engineer. Based on the determination of the Waste Management Engineer, chemical waste may be packaged for off-INEL treatment, storage, or disposal, or may be disposed of at an INEL disposal site.

4.6.2 Approved Routine Chemical Disposals

The following chemical users may discharge routinely-used chemical wastes to industrial waste:

1. Analytical Laboratory
2. EBR-II Water Chemistry Laboratory
3. EBR-II Cooling Tower
4. Photo Laboratories
5. Boiler Water Treatment Periodic Blowdowns

6. Area Air Washers

7. HFEF Cooling Towers

The basis for this permission is that the chemical inventories and discharge amounts of these users have been reviewed, with the finding that regulated chemicals are not used, amounts are not exceeded, or "de minimis" regulated limits are not exceeded. These users shall coordinate disposal of increased chemical waste amounts and new chemicals with the Waste Management Engineer.

4.6.3 Outdated Chemicals

Chemicals that have an expired shelf life may be transferred to the INEL service contractor as surplus by Supply provided that:

- a. Their containers have not been opened, and
- b. They do not form hazardous oxidation or decomposition byproducts upon aging, such as peroxide formation in ethers.

If the site service contractor will not accept the outdated chemicals, disposal shall be coordinated with the Waste Management Engineer.

4.6.4 Waste Oil

Dirty oil such as crankcase drain oil should be accumulated by Plant Services and transferred via Supply to the CFA Oil Depot for disposal by the INEL service contractor. Oils shall be sampled prior to disposal in accordance with 40 CFR266, subpart E.

4.6.5 Solvents

Solvents which would be classified a hazardous waste shall not be discharged to drains or directly to the environment. Disposal of bulk quantities of solvents shall be coordinated with the Waste Management Engineer.

4.6.6 Disposal of Empty Containers

- 4.6.6.1 Containers are considered empty when the contents have been removed by the normal practice for that type container (pouring, pumping, aspirating, etc.) and the residue

in the container is less than 2.5 centimeters deep or no more than 3% by weight of the container capacity remains as residue (Ref. 40CFR261.7).

NOTE: Items disposed of in the CFA landfill cannot contain free liquids.

- 4.6.6.2 Empty metal containers with 5 gallon or greater capacity are collected by Plant Services for disposal in the CFA landfill. Containers are transported by Supply as Conditional Items, as specified in 4.3.2 of this chapter.

The containers may not contain free liquids. Liquids remaining in the containers must be absorbed with a compatible approved absorbant: portland cement, Aquaset or Petroset.

- 4.6.6.3 Empty glass, plastic, and small metal containers, except those that originally contained pesticides, herbicides or insecticides, may be disposed of in green dumpsters providing that any hazard labels are removed or rendered unrecognizable.

- 4.6.6.4 Empty pesticide containers shall be triple rinsed, as defined 40CFR165.1(x), before being disposed of in accordance with 40CFR165.9. Pesticide container residues and rinsates should be collected and added to spray mixtures. If this is not possible, coordinate disposal of pesticide residues and rinsates with the Waste Management Engineer.

4.6.7 Explosive Material Disposal

Disposal of explosives or suspected explosives (such as peroxide contaminated ethers) shall be handled by the INEL site service contractor on a case by case basis. Removal and disposal shall be coordinated by the Waste Management Engineer.

5.0 RESPONSIBILITIES

- 5.1 Manager, Safety, Environment and Safeguards, shall provide assurance to the Site Manager that the collection and disposal of nonhazardous, nonradioactive waste at ANL-W is in compliance with established State of Idaho and federal regulations.
- 5.2 Manager, Environment and Waste Management, shall:
- 5.2.1 Coordinate ANL-W nonhazardous, nonradioactive waste disposal activities with the INEL service contractor.
 - 5.2.2 Provide technical assistance related to the handling and disposal of nonhazardous, nonradioactive waste.
 - 5.2.3 Keep the Site Manager and the Manager, Safety, Environment and Safeguards, informed of the status of ANL-W compliance with regulations for the disposal of nonhazardous, nonradioactive waste.
 - 5.2.4 Prepare records and reports related to the disposal of nonhazardous, nonradioactive waste, as required.
 - 5.2.5 Review and approve procedures related to the disposal of nonhazardous, nonradioactive waste.
- 5.3 Manager, Radiation, Fire and Safety Engineering, shall provide surveillance of waste materials to ensure that they are indeed nonradioactive prior to disposal.
- 5.4 Manager, Supply, shall excess or dispose of salvageable and recyclable materials, including antifreeze, scrap metal, scrap lumber, paper, mercury, and outdated chemicals.
- 5.5 Manager, Plant Services, shall ensure that Plant Services personnel involved are familiar with and act in accordance with the requirements of this Chapter.
- 5.6 Line Managers shall:
- 5.6.1 Control the collection, identification, and storage of nonhazardous, nonradioactive waste and minimize waste volumes.
 - 5.6.2 Ensure segregation of radioactive and nonradioactive wastes.
 - 5.6.3 Ensure segregation of salvageable and hazardous materials from routine nonhazardous, nonradioactive waste.

- 5.6.4 Issue General Work Authorizations to the INEL service contractor for disposal of nonhazardous, nonradioactive waste which cannot be disposed of via normal ANL-W disposal procedures.

6.0 REFERENCES

6.1 ANL-W Environment, Safety and Health Manual:

Section V, Chapter 7, "Solvents"

Section V, Chapter 14, "Toxic Materials"

Section VI, Chapter 7, "Chemical Safety"

Section V, Chapter 15, "Mercury"

Section VII, Chapter 7, "Green Tags"

REFERENCES - SUPPLEMENTAL INFORMATION

- 6.2 Hazardous Materials Regulations of the Department of Transportation Tariff No. BOE-6000-C.
- 6.3 Chemical Rubber Co., Handbook of Laboratory Safety, Section 1.9 - Chemical Waste Disposal; Section 1.10 - Disposal of Hazardous Waste.
- 6.4 IDO Immediate Action Directive 0510-1, Criteria for the Control of Open Burning at the INEL.
- 6.5 Rules and Regulations for the Control of Air Pollution in Idaho, Latest Rev., Idaho Department of Health and Welfare.
- 6.6 Water Quality Standards and Waste Water Treatment Requirements, Latest Rev., Idaho Department of Health and Welfare.
- 6.7 Prudent Practices for Disposal of Chemicals from Laboratories, National Research Council, National Academy Press, Washington, D. C., 1983.
- 6.8 EG&G Landfill Operations Waste Acceptance Criteria.

Section VIII - Chapter 6
DISPOSAL OF HAZARDOUS WASTE

1.0 PURPOSE

This Chapter establishes procedures and limitations for storage or disposal of hazardous waste material generated at ANL-W. Storage and disposal of hazardous waste material are regulated by this manual, by the site service contractor, by DOE, and by agreements between DOE and other federal agencies (e.g., EPA).

2.0 DEFINITIONS

2.1 SOLID WASTE

Waste is solid, liquid, semi-solid, or gaseous material that has served its intended purpose and is discarded.

2.2 HAZARDOUS WASTE (HW)

Solid waste is hazardous if it meets any of the applicable following criteria and has not been excluded from regulation as a hazardous waste [40 Code of Federal Regulations (CFR) 261.4(b)].

2.2.1 If it exhibits any of the following characteristics (40CFR261.20-261.24; Subpart C).

2.2.1.1 Ignitability

- (a) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has a flash point less than 60°C (140°F);
- (b) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;
- (c) It is an ignitable compressed gas as defined in 49CFR173.300;
- (d) It is an oxidizer as defined in 49CFR173.151.

2.2.1.2 Corrosivity

- (a) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5.
- (b) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 in.) per year at a test temperature of 55°C (130°F).

2.2.1.3 Reactivity

- (a) It is normally unstable and readily undergoes violent change without detonating.
- (b) It reacts violently with water.
- (c) It forms potentially explosive mixtures with water.
- (d) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present danger to human health or to the environment.
- (e) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or to the environment.
- (f) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
- (g) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
- (h) It is a forbidden explosive as defined in 49CFR173.51, or a Class A explosive as defined in 49CFR173.53 or a Class B explosive as defined in 49CFR173.88.

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2.2.1.4 Extraction Procedure (EP) Toxicity

- (a) If the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table.

TABLE I

Maximum Concentration of Contaminants
for
Characteristic of EP Toxicity

<u>Contaminant</u>	<u>mg/liter</u>
Arsenic	5.0
Barium	100.0
Cadmium	1.0
Chromium	5.0
Lead	5.0
Mercury	0.2
Selenium	1.0
Silver	5.0
Endrin (1, 2, 3, 4, 10, 10-hexachloro-1, 7-epoxy - 1, 4, 4a, 5, 6, 7, 8, 8a-octahydro - 1, 4-endo, endo-5, 8-dimethano-naphthalene)	0.02
Lindane (1, 2, 3, 4, 5, 6-hexa-chloro-cyclohexane, gamma isomer)	0.4
Methoxychlor (1, 1, 1-Trichloro-2, 2-bis [p-methoxyphenyl] ethane)	10.0
Toxaphene (C ₁₀ , H ₁₀ Cl ₈ , Technical chlorinated camphene, 67-69 percent chlorine)	0.5
2,4-D (2,4-Dichlorophenoxyacetic acid)	10.0
2,4,5-TP Silvex; (2,4,5-Trichlorophenoxypropionic acid)	1.0

2.2.2 If it is listed in Subpart D (40CFR261.30-261.33).

2.2.3 If it is a mixture of a solid waste and a hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C (40CFR), unless the resultant mixture no longer exhibits any characteristic of hazardous waste - identified in Subpart C.

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- 2.2.4 If it is a mixture of solid waste and one or more hazardous waste listed in Subpart D and has not been excluded under 40CFR260.20 and 260.22.

2.3 RADIOACTIVE MIXED WASTE (RMW)

If it is hazardous waste and radioactive (by definition).

2.4 STORAGE

A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 40CFR Parts 264 and 265 and the permit requirements of 40CFR Part 270 except for the following.

- 2.4.1 If it is a 90-day or less storage area and the generator complies with Subpart C and D in 40CFR Part 265 and with 265.16 (Training and Contingency Plan Implementation).
- 2.4.2 If it meets the following requirements of a Satellite Accumulation Area.
- (a) \leq 55-gallons of hazardous waste or one quart of acutely hazardous waste [40CFR261.33(e)].
 - (b) Containers at or near any point of generation where wastes initially accumulate.
 - (c) Complies with 265.171, 265.172, and 265.173(a); Use and Management of Containers.
 - (d) Marks his container with the words "Hazardous Waste" or with other words identifying the contents of the container.

3.0 SUMMARY OF APPLICABLE REGULATIONS

Table II summarizes the titles, promulgated regulations, and coverage of applicable laws affecting disposal of hazardous and mixed wastes generated at ANL-W. ANL-W compliance is required by various Executive Orders, DOE Orders, and/or DOE agreements with other agencies (such as the EPA).

4.0 REQUIREMENTS

4.1 CONTROL OF HAZARDOUS WASTE

All hazardous waste shall be controlled in a manner which will prevent health hazards, public nuisances, or environmental pollution, and which shall comply with applicable regulations.

TABLE II. SUMMARY OF APPLICABLE REGULATIONS

<u>Title of Legislation</u>	<u>Resulting Regulations Published At</u>	<u>Summary of Coverage Applicable to ANL-W</u>
1. Toxic Substances Control Act, PL94-469, (TSCA)	40 CFR 700-799	Polychlorinated Biphenyls (PCBs) Chlorofluorocarbons (e.g., Freons)
2. Federal Insecticide, Fungicide, and Rodenticide Act, PL92-516, (FIFRA)	40 CFR 162-180	Pesticide use Disposal of pesticide containers
3. Occupational Safety and Health Act, PL91-596, (OSHA)	29 CFR 1910, 1915, 1918, 1926	Asbestos
4. Clean Air Act, PL91-604, (CAA)	40 CFR 50-80	Discharges to the atmosphere
5. Clean Water Act, PL92-500, (CWA)	40 CFR 100-140, 400-470	Discharges to surface waters
6. Safe Drinking Water Act, PL93-523, (SDWA)	40 CFR 140-149	Drinking water quality Discharges into underground injection wells
7. Resource Conservation and Recovery Act, PL94-580, (RCRA)	40 CFR 240-271	Hazardous wastes
8. Comprehensive Environmental Response, Compensation, and Liability Act, PL96-510, (CERCLA)	40 CFR 300	Cleanup of releases of hazardous substances to air, land, surface water or groundwater. Spill reporting.
9. Hazardous Materials Transportation Act, PL93-633, (HMTA)	49 CFR 106, 107, 171-179	Packaging, labeling, and transportation of hazardous materials

4.2 GENERAL REQUIREMENTS

- 4.2.1 All hazardous waste generated at ANL-W shall be disposed of by methods and at sites approved by DOE, USEPA, or both, as applicable.
- 4.2.2 All hazardous waste shall be disposed of through the site-service contractor with assistance from the Waste Management Engineer.
- 4.2.3 Hazardous Waste and Radioactive Mixed Waste shall be segregated at the point of generation.
- 4.2.4 The following materials shall be prohibited from receipt for storage at the Hazardous Waste Storage Facility (HWSF), on the INEL:
 - (a) Pressurized vessels, disposal of aerosol cans requires that the can must be depressurized.
 - (b) Waste in a gaseous state (as opposed to a liquid/vapor equilibrium state).
 - (c) Waste containing active biological, pathogenic, or infectious material.
 - (d) HW containing DOT Class A, B, or C explosives - 49CFR.
 - (e) HW containing 40CFR261, Class P, acutely hazardous wastes except on a case by case non-standard shipment basis.
 - (f) Shock-sensitive, pyrophoric, or thermally or otherwise unstable HW. Exceptions may be made with prior special arrangements within the safety analysis for the HWSF.
 - (g) Radioactive mixed waste (radionuclide content of $< 2 \text{ nCi/gm}$ activity, smear less than 200 dpm/100 cm^2 $\beta\gamma$, 20 dpm/100 cm^2 α , and total $\beta\gamma$ activity is less than 100 cpm above background, without shielding.
 - (h) Batteries, piezoelectric crystals, thermoelectric generators, and similar devices that may yield an electric spark and chemical squibs shall not be in the same container with ignitables or materials which may generate flammable, or ignitable gases or vapors.

4.2.5 The following materials shall be prohibited from receipt for storage at the Radioactive Mixed Waste Storage Facility (RMWSF) on the INEL:

- (a) 4.2.4 (a), (b), (d), (e), (f), and (h).
- (b) Waste containing active pathogenic material, which may cause bacterial action or excessive gas buildup.
- (c) High-level waste (resulting from reprocessing nuclear fuel).
- (d) Vermiculite, used in containers as a thermal shield.

4.2.6 Satellite Accumulation Areas have been established by the waste generators throughout the ANL-W site. These areas shall be inspected on a monthly basis and a copy of the inspection sheet (Attachment 6) shall be sent to the Waste Management Engineer. Satellite Accumulation Areas will be in accordance with the requirements given in 2.4.2.

4.2.7 The waste generator shall have budgetary responsibility for all costs necessary to deliver waste shipments to the HWSF and RMWSF.

4.3 CONTAINER REQUIREMENTS

4.3.1 All HW and RMW shall be in DOT 49CFR178 approved containers.

4.3.2 Weight limits are as follows:

<u>FACILITY</u>	<u>CRITERION</u>	<u>UNPALLETED</u>	<u>PALLETED</u>
HWSF	Weight (lbs)	600	800
RMWSF	Weight (lbs)		800*

* Ignitables or reactivities are limited to 600 lbs.

4.3.3 The waste generator shall load containers to an efficient volume.

4.3.4 All items within a container shall be compatible with each other and with the containers.

4.3.5 Internal packaging, shielding, absorbent, etc., shall generally be noncombustible unless DOT-approved labs packs or DOT-recognized methods are used.

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- 4.3.6 Lead, either metal or combined forms shall not exceed 100 lbs per containers of ignitables. For shipment to the RMWSF, the presence of lead in the container shall be indicated on the container and in the documentation as required by 49CFR.
- 4.3.7 Halogenated chemicals or halogen compounds shall not be in the same inner or outer container with ignitables.
- 4.3.8 External surface radiological contamination shall be $< 200 \text{ dpm}/100 \text{ cm}^2 \text{ } \beta\gamma$ and $< 20 \text{ dpm}/100 \text{ cm}^2 \text{ } \alpha$.
- 4.3.9 Containers shall be new or in cases where reusable containers are used, they shall be recertified by the suppliers that they currently comply with 49CFR178.
- 4.3.10 Bulged or swelled drums are not acceptable for shipment.
- 4.3.11 Containers shall have a gas-permeable gasket such as the Dewey and Almy Foam Gasket for DOT 17C 55-gallon drums (EG&G Specification ES-50348).
- 4.3.12 Bung plugs or caps shall be gasketed and tightly closed to prevent leakage.
- 4.3.13 Closure ring bolts shall be torqued to approximately 40-ft lbs and shall be secured by locknuts.
- 4.3.14 Cardboard, paper, cloth, burlap, rubber, or glass outer packaging is prohibited. DOT-approved polyethylene outer packaging is permitted for liquids.
- 4.3.15 Where pressure relief is necessary, such containers shall contain relief provisions. Specific approval of the Hazardous Waste Program Manager (site-service contractor) is required for shipment.

4.4 PALLETING

- 4.4.1 All drums should be palleted and banded to the pallet. Boxes and other containers should be palleted if not provided with hoisting means.
- 4.4.2 The contents of all drums on a pallet shall be compatible.
- 4.4.3 All labeling and markings shall be clearly visible on containers after banding.

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- 4.4.4 Pallets shall be 48 x 48 in., in good condition, free of mud, clogged dust, dripping oils, etc.,
- 4.4.5 Oxidizers shall be placed on compatible pallets, not on wooden pallets.
- 4.4.6 Any specialized rigging required for the shipment shall remain with the shipment and meet the requirements of the DOE Hoisting and Rigging Manual.

4.5 LABELING

- 4.5.1 Required labels or marks on containers shall be either printed, stenciled, or neatly hand-lettered.
- 4.5.2 Drum information shall be placed neatly and clearly on the head and side of each drum and the top center and upper right quadrant (two long sides) for boxes.
- 4.5.3 The required information on Attachment 1 includes the following:
 - (a) Hazardous Waste Statement.
 - (b) Proper DOT shipping name per 49CFR.
 - (c) UN or NA number per 49CFR172.101.
 - (d) Generator name and address:
Idaho National Engineering Laboratory
Box 1625
Idaho Falls, ID 83415."
 - (e) EPA ID Numbers "ID 4890008952."
 - (f) EPA Waste Number per 40CFR261.
 - (g) Accumulation start date.
 - (h) Manifest document number (obtain from Waste Management Engineer).
- 4.5.4 Radioactive labels (if required) and DOT 49CFR labels shall be placed adjacent to above label.
- 4.5.5 Drums heavier than 660 lbs for ignitables and reactives or 800 lbs of other RMW shall be marked "Special Handling" in 0.5 in. contrasting colored letters on the drum lid, around the circumference.
- 4.5.6 The container shall be durably marked in one place on a contrasting background, clear and unobstructed

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and in characters at least 0.5 in. high with the container gross weight.

4.6 FISSILE, TRANSURANIC, AND ACCOUNTABLE NUCLEAR MATERIAL

- 4.6.1 HW shall not contain any fissile material for shipment to HWSF.
- 4.6.2 Fissile or transuranic material is restricted at the RMWSF to less than 15 gm/container except for 4.6.3 below.
- 4.6.3 RMW containing fissile material may be accepted only in DOT-17C drums with a maximum fissile material concentration of 200 g/drum.
- 4.6.4 Accountable nuclear materials are uranium, plutonium, californium, neptunium, thorium, tritium, berkelium, americium, enriched lithium, deuterium, and curium. Greater than 2 nCi/gm of the above in a container shall be recorded per 4.5 and 5.0 of this chapter.

5.0 PROCEDURAL REQUIREMENTS

- 5.1 Waste generators with HW or RMW awaiting disposition shall fill out Form EG&G 699 (Attachment 2) and submit all copies to the Waste Management Engineer (WME). This shall include an estimate of the container gross weight.
- 5.2 The physical, chemical and radiological characteristics shall be known. If uncertainty exists concerning identification or characterization of the waste, the generator shall provide a sample and provide funding for analysis. Contact the Waste Management Engineer for assistance.
- 5.3 The Waste Management Engineer will send the 669 to EG&G.
- 5.4 Upon receiving Form EG&G 669-A (Attachment 3) with specific packaging, labeling, marking, and special handling requirements, the WME will assist the waste generator in scheduling shipment.
- 5.5 The Uniform Hazardous Waste Manifest [EPA Form 8700-22 (Attachment 4)] shall be completed in accordance with 40CFR262 requirements. The WME or his designated alternate will sign the manifest. The transport driver, after ensuring that the shipment and the papers are in order, signs the papers, returns one copy to the WME, and transports the shipment to the HWSF or RMWSF. After inspection, correction of any deviations, and unloading of the shipment, the HWSF or RMWSF

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operator will sign the papers and return one copy to the drivers. The WME will receive the original generators copy to be retained at ANL-W by the WME.

- 5.6 An ANL-W 126-C Shipping Order form is required for nonradioactive hazardous waste shipments. This will be provided by the Waste Generator to the WME
- 5.7 A "Certification Statement" (Attachment 5) will be provided by the waste generator (signed) to the WME.
- 5.8 Shipment of RMW shall be in accordance with DOE-ID Order 5480.1A.

6.0 RECORDS AND REPORTS

Radioactive mixed waste stored at the INEL are reported to DOE-ID by the Waste Management Engineer. Hazardous Waste Manifests, for HW and RMW shipments, are kept on file by the Waste Management Engineer.

7.0 RESPONSIBILITIES

- 7.1 The Waste Generator is responsible for packaging HW and RMW and for requesting disposal authorization in accordance with requirements given in this Chapter and in the HWSF and RMWSF Waste Acceptance Criteria (Reference 8.1 and 8.2).
- 7.2 The Waste Management Engineer shall review disposal requests and ensure that waste is packaged in accordance with requirements given in this Chapter and in the HWSF and RMWSF Waste Acceptance Criteria. The Waste Management Engineer shall provide facility managers with current Packaging Criteria and provide all records and reports for Waste Management Information Systems.
- 7.3 The Assistant to the Manager, Safety, Security and Safeguards shall keep the Site Manager and the Manager, Safety, Security and Safeguards informed on the status of current regulatory requirements for the disposal of hazardous and radioactive mixed waste.
- 7.4 The Manager, Special Materials, has overall responsibility of radioactive mixed waste to the RMWSF, as described in Section IV, Chapter 2 of this manual, "Requirements and Procedures for Shipment of Radioactive Materials to Destinations within the INEL."

8.0 REFERENCES

- 8.1 EG&G, "Hazardous Waste Storage Facility Waste Acceptance Criteria," December 1986.
- 8.2 EG&G, "Radioactive Mixed Waste Storage Facility Waste Acceptance Criteria," December 1986.
- 8.3 DOE Order 5480.2, "Hazardous and Radioactive Mixed Waste Management."
- 8.4 40CFR, Subchapter I, Solid Wastes, Subparts 240 through 271.
- 8.5 40CFR Subchapter R, Toxic Substance Control Act, Subparts 702 through 792.
- 8.6 49CFR Subchapter C, Hazardous Material Regulations.
- 8.7 EG&G Engineering Specification, ES-50348, "Dewey and Almy Foam Gaskets, DOT 17C, 55-gallon drum."
- 8.8 DOE Order 5820.2, "Radioactive Waste Management."
- 8.9 DOE Order 5480.1A, "Environmental, Safety, and Health Protection."

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INSPECTION LOG

Location: _____ Date: _____ Inspector: _____

Instructions: Inspect for structural integrity, deterioration, defects and general condition to determine storage area condition in accordance with management

Storage Area Standards	Inspection		
	Pass	Fail	
(1) Full Drums Standing and Segregated.....	
(2) Empty Drums Closed and Stacked	
(3) 3' Aisle Space	
(4) Containers Labeled and Properly Oriented...	
(5) Spilled Residue Removed	
(6) Area Secured	
(7) Signs Posted	
(8) Communicate Devices Functioning.....	
(9) Alarm System Operational.....	
(10) Fire Control Equipment Operational	
(11) Spill Control Equipment and Materials	
(12) Personal Protective Equipment	
(13) Decontamination Equipment	
	

Attachment 6 - Satellite Accumulation Inspection Sheets

INSPECTION LOG

Location: _____ Date: _____ Inspector: _____

Instructions: Inspect for structural integrity deterioration, defects and general condition to determine container quality for acceptance or rejection standards. Report deficiencies immediately.

Container Condition Standards	Inspection	
	Pass	Fail
(1) Bungs secured (closed top head).		
(2) Bolt Ring secured (opened top head).		
(3) Label Specifications:		
(a) Accumulation Label _____		
(b) Pre-transport Label _____		
(4) Container Condition		
- Top Chime Seam		
- Botton Chime Seam		
- Body Seam		
- Rolling Hoops		
- Top Head Cover		
- Vent Bung Closure		
- Bung Closure		
- Bolt Ring		
- Bolt		
- Bolt Ring Gasket Seal		
(5) Leaks		
(6) General Body Shape, Contour, Defects, Visible Pitting, Creases, Rust, Corrosion, Metal Fatigue		

REMARKS:

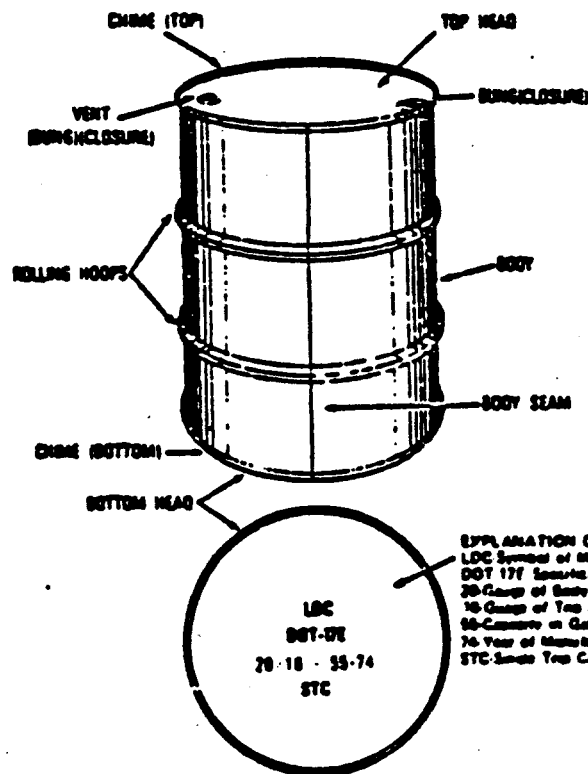
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4. Drum Container Specifications

TYPICAL LIGHT GAUGE CLOSED HEAD DRUM

SPECIFICATION 17E: STEEL DRUM, SINGLE TRIP CONTAINER
(STC) REMOVABLE HEAD CONTAINERS NOT AUTHORIZED

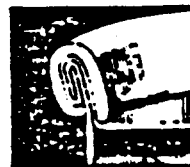


EXPLANATION OF MARKINGS
LDC Symbol of Manufacturer
DOT 17E Specification Number
20-Gauge of Body
18-Gauge of Top and Bottom
55-Content in Gallons
74-Year of Manufacture
STC-Single Trip Container

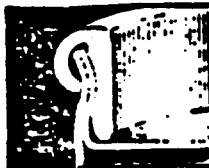
TYPICAL CHIME CONSTRUCTION-STEEL DRUMS



DOUBLE SEAMED
CHIME SECTION



DOUBLE SEAMED
CHIME SECTION WITH
REINFORCING RING



WELDED CHIME SECTION
WITH REINFORCING RING

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<h1>HAZARDOUS WASTE</h1>	
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL	
IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY	
PROPER D.O.T. SHIPPING NAME _____ UN OR NAJ _____	
GENERATOR INFORMATION:	
NAME _____	
ADDRESS _____	
CITY _____ STATE _____ ZIP _____	
EPA ID NO. _____	EPA WASTE NO. _____
ACCUMULATION START DATE _____	MANIFEST DOCUMENT NO. _____
HANDLE WITH CARE!	
CONTAINS HAZARDOUS OR TOXIC WASTES	
STYLE WM4	

© LABELMASTER, CHICAGO, IL 60648

Attachment A - Hazardous Waste Marking

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EBC <small>P.O. Box 50000 St. Louis, MO 63150</small>		GENERATOR'S HAZARDOUS WASTE MATERIAL PROFILE SHEET		Waste Profile Sheet Code _____ Facility # _____	
A. General Information					
Generator Name _____			Charge No. _____		
Facility Address: _____ _____ _____					
Technical Contact: _____		Title: _____		Phone: _____	
Name of Waste: _____					
Process Generating Waste: _____					
B. Physical Characteristics of Waste				C. Incineration Information	
Color _____ <input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Semi-solid <input type="checkbox"/> Powder	Physical state @ 70°F _____ <input type="checkbox"/> Multilayered <input type="checkbox"/> Bi-layered <input type="checkbox"/> Single phased	Free Liquids _____ <input type="checkbox"/> Yes <input type="checkbox"/> No Volume _____ % <input type="checkbox"/> Flash Point _____ °F <input type="checkbox"/> <70°F <input type="checkbox"/> 70°F-100°F <input type="checkbox"/> 101°F-130°F <input type="checkbox"/> 140°F-200°F	pH: _____ <input type="checkbox"/> <2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4.1-8.9 <input type="checkbox"/> 7 <input type="checkbox"/> 7.1-10 <input type="checkbox"/> 10.1-12.5 <input type="checkbox"/> >12.5 <input type="checkbox"/> Exact _____	<input type="checkbox"/> Status Heat of Combustion _____ <input type="checkbox"/> Ash Content _____ <input type="checkbox"/> Halogen Content _____	
D. Chemical Composition (Totals must add to 100% or attach analysis sheet)			E. Metals <input type="checkbox"/> Total (ppm) <input type="checkbox"/> EPA Extraction Procedure (mg/L)		
_____ %	_____ %	_____ %	Arsenic (As) _____	Selenium (Se) _____	
_____ %	_____ %	_____ %	Barium (Ba) _____	Silver (Ag) _____	
_____ %	_____ %	_____ %	Cadmium (Cd) _____	Copper (Cu) _____	
_____ %	_____ %	_____ %	Chromium (Cr) _____	Nickel (Ni) _____	
_____ %	_____ %	_____ %	Mercury (Hg) _____	Zinc (Zn) _____	
_____ %	_____ %	_____ %	Lead (Pb) _____	Thallium (Tl) _____	
_____ %	_____ %	_____ %	Chromium-Max (Cr + G) _____		
F. Other Components - Total (ppm)			G. Shipping Information		
Cyanides _____	PCB's _____	Sulfides _____	Phenolics _____	Anticipated _____ Gals. _____ Cubic Yards Volume: _____ Other _____ Per: <input type="checkbox"/> One Time <input type="checkbox"/> Week <input type="checkbox"/> Month <input type="checkbox"/> Quarter <input type="checkbox"/> Year <input type="checkbox"/> _____	
H. Hazardous Characteristics					
Reactivity: <input type="checkbox"/> None <input type="checkbox"/> Pyrophoric <input type="checkbox"/> Shock Sensitive					
<input type="checkbox"/> Explosive <input type="checkbox"/> Water Reactive <input type="checkbox"/> Other _____					
Radioactive? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Radiation Level _____ mrem/hr					
Radionuclide Content _____					
I. New Waste Is Presently Stored/Special Handling Information _____ _____ _____					
[] Additional Pages Attached					
I hereby certify that all information submitted in this and all attached documents is complete and accurate, and that all known or suspected hazards have been disclosed.					
Authorized Signature _____			Title _____ Date _____		

**Attachment B - Generator's Hazardous Waste Material Profile Sheet
(Form EG&G 669)**

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HAZARDOUS AND RADIOACTIVE MIXED WASTE PACKAGING REQUIREMENTS

Initiator Name _____ Location _____

Organization Name _____

Description of Waste(s) _____

Listed below is the information for packaging of hazardous and radioactive mixed waste prior to transportation, storage, and disposal.

Packaging _____

Marking _____

Labeling _____

Proper Shipping Name(s) _____ DOT Identification No. _____

DOT Hazard Class _____ EPA Waste No. _____

Prepared By _____ Date _____

Copy 1—Originator
Copy 2—Traffic and Receiving
Copy 3—Waste Management

Attachment 3 - Hazardous and Radioactive Mixed Waste Packaging
Requirements (Form EG&G-669A)

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address				A. State Manifest Document Number	
4. Generator's Phone ()				B. State Generator's ID	
5. Transporter 1 Company Name		6. US EPA ID Number	C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number	D. Transporter's Phone		
9. Designated Facility Name and Site Address		10. US EPA ID Number	E. State Transporter's ID		
			F. Transporter's Phone		
			G. State Facility's ID		
			H. Facility's Phone		
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit (lb/yr)	15. Waste No.
a.		No.	Type		
b.					
c.					
d.					
16. Additional Descriptions for Materials Listed Above		17. Handling Codes for Wastes Listed Above			
18. Special Handling Instructions and Additional Information					
19. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this assignment are fully and accurately described above by proper shipping name and are described, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable environmental and national governmental regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste management certification under Section 3005(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.					
Printed/Typed Name		Signature		Month Day Year	
17. Transporter 1 Acknowledgment of Receipt of Materials		Printed/Typed Name			
		Signature		Month Day Year	
18. Transporter 2 Acknowledgment of Receipt of Materials		Printed/Typed Name			
		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name		Signature		Month Day Year	

ORIGINAL - RETURN TO GENERATOR -

Attachment 4 - Uniform Hazardous Waste Manifest (EPA Form 8700-22)

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HAZARDOUS OR RADIOACTIVE MIXED WASTE
CERTIFICATION STATEMENT

Certification is hereby made to the Waste Management Programs, Hazardous Waste Program, EG&G Idaho, Inc., that shipment No. _____ of hazardous or mixed hazardous and low-level radioactive waste has been inspected in accordance with and complies with the requirements of the respective WAC prior to its shipment, except as approved by letter _____ (attached).

Name Typed _____

Signature a,b _____

DATE _____

TITLE: _____

- _____
- a. Shall be signed by a supervisory person cognizant of Waste Acceptance Criteria requirements.
 - b. The person responsible for signing this certification verifies (based on personal observation, certified records, or direct reports from workers) and certifies by signature that the packaging and container contents are in accordance with the specified requirements.

- NOTE:
- a. The knowing and willful recording of false, fictitious, or fraudulent statements or entries on this document may be punishable as a felony under federal statutes.
 - b. See WAC 2.4.2 for possible required analysis to accompany and become a part of this certification.

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